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EXAMINER

SWEET, THOMAS

ART UNIT

PAPER NUMBER

3738

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/803,392

Applicant(s)

BANAS ET AL.

Examiner

Thomas J. Sweet

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-9 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>24 January 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection. Claim 1 has been amended to include a partial limitation of claim 2 not previously considered which established a new grounds for rejecting the claims. With regard to the arguments still relevant to the case, the Examiner would like to point out that thin distinctions can not be supported by border line indefinite claim language using plural generalities and approximation (i.e. the terms “generally and “approximate” give wide latitude to the broadest reasonable interpretation of the claims).

With regard to the structural argument with respect to Wolinsky;

Though “chain” is use to describe the ring, that is a semantic argument, so in the broadest reasonable interpretation of the claim the so called chain is a ring.

The examiner does not consider a unitary element (strut), separate elements.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., how the strut functions,) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Though “strut, hinge, peak and valley” is not use to describe the ring, that is a semantic argument, so in the broadest reasonable interpretation of the claim the ring includes generally linear struts interconnected the peaks and valleys by hinge elements (see the figure below).

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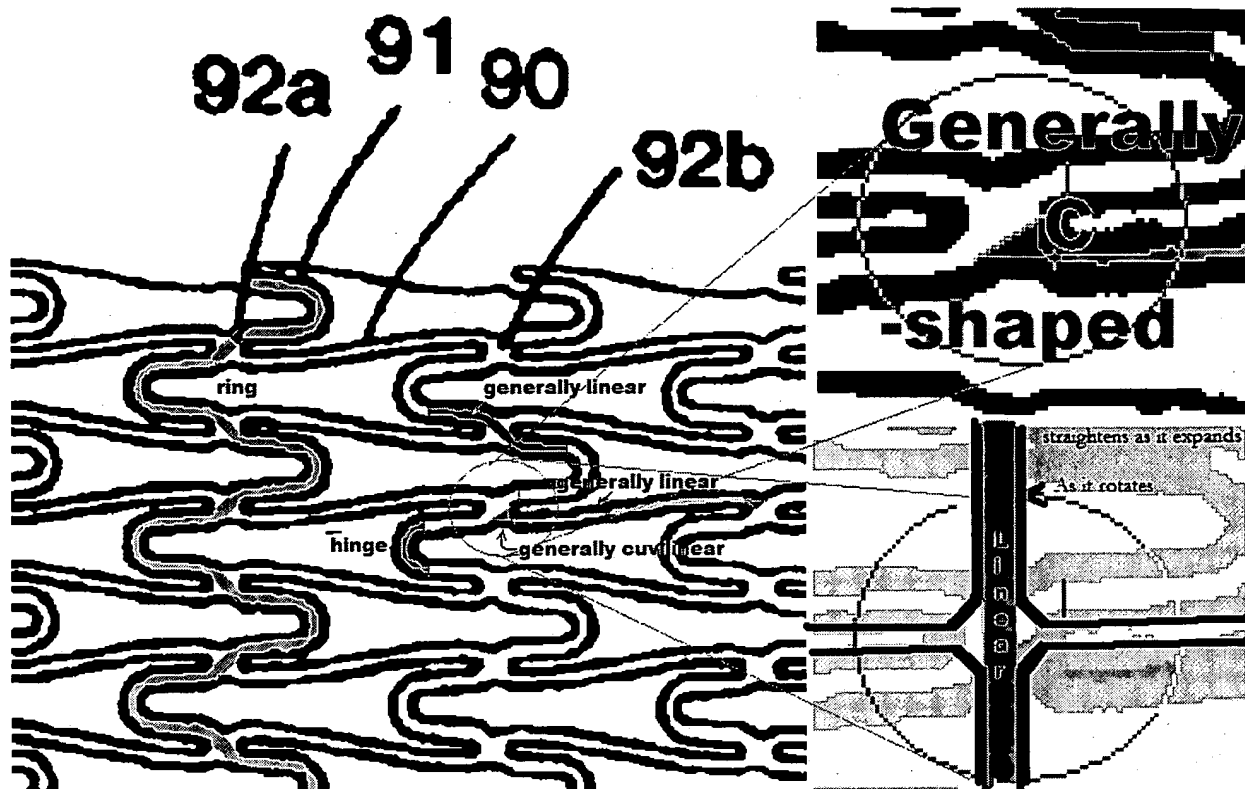
The struts are generally linear and become more linear with expansion (see the figure below).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The examiner has established motivation at the time the invention was made. The peaks and valleys (hinges) of Wolinsky bend to expand so it is of interest to reduce strain as rejected.

The interconnecting elements edges of Wolinsky do have a generally curvilinear shape which is generally C-shaped (see the figure below).

Claim 4 has not been addressed because Wolinsky is clearly unitary.

The following figure should help illustrate the Examiners interpretation of the claims.



With regard to the structural argument with respect to Burgermeister;

The term generally linear is subjective and under the broadest reasonable interpretation of the claims, the straight sections of the interconnecting elements satisfy the limitation.

Though figure 10 is a schematic, all patent figures are schematics and are good for all they teach to one of ordinary skill in the art. One of ordinary skill would recognize the schematic structure as a functional stent. If the struts could not be linear the schematic would not be illustrated with differently shaped struts. The so call schematic anticipates the claims.

Though the whole stent of Burgermeister does not elongate, the endoluminal stent of Burgermeister elongates (can add length...) along (as in a segment as shown in fig. 10) the longitudinal axis of the endoluminal stent as it expands from a smaller diameter to a larger diameter. This interpretation meet the claim language.

Claim Rejections - 35 USC § 112

Claims 2-5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The new terminology “generally uniform in width” is not supported by the original disclosure. The width of the struts is mentioned in the specification, but description which can be interpreted as uniform or generally uniform is not present. The original drawings do not support such a distinction since it does not reasonable appear to be uniform in any or all of the figures.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 7-9 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Wolinsky et al. (US 6730116). Wolinsky et al discloses an endoluminal stent (Fig. 11) comprising; a plurality of circumferential expansion elements (91) co-axially spaced to form a generally (a subjective term) tubular configuration (inherent shape of a stent) and each having a

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generally (a subjective term) undulating pattern (zip zap, sinusoidal- at D) of peaks and valleys (curves or hinges) interconnected by struts (between the curves); wherein the struts form generally (a subjective term) linear sections (generally form a line between the curves) and are interconnected at the peak and valleys (curves) by hinge elements (curves which the struts pivot about during expansion) and a plurality of generally (a subjective term) linear (generally form a line along a segment of there length) interconnecting elements (90) interconnecting adjacent pairs of circumferential expansion elements (as shown) and joined at approximate mid-points (92b) of adjacent struts along a longitudinal axis of the endoluminal stent.

With regard to claim 7, the plurality (every other one circumferentially) of generally (a subjective term) linear interconnecting members are all parallel to each other. Upon expansion all interconnecting members are parallel.

With regard to claim 8, the plurality of generally (a subjective term) linear interconnecting members are arrayed as at least two groups of interconnecting members along a longitudinal axis of the endoluminal stent, a first of the at least two groups (every other one circumferentially) having a different angular orientation relative to the longitudinal axis of the endoluminal stent than a second of the at least two groups (the remainder of the struts).

With regard to claim 9, the endoluminal stent elongates along the longitudinal axis of the endoluminal stent as it expands from a smaller diameter to a larger diameter (as the stent expands the mid-section 92 rotates, such that it displaces each interconnecting element along the length of the stent).

With regard to claim 11, around the mid-section (92 which is wider) the struts and interconnecting elements are thinner, so They handle the strain by flexing and the mid-section handles the stress, since its reinforced.

Claims 1 and 9 are rejected under 35 U.S.C. 102(a) as being anticipated by Burgermeister (US Pgpab 20020123798). Burgermeister discloses an endoluminal stent (Fig. 10 and fig 8A which will not be addressed) comprising; a plurality of circumferential expansion elements (the zig-zags) co-axially spaced to form a generally (a subjective term) tubular configuration (the inherent shape of a stent) and each having a generally (a subjective term) undulating pattern (the zig-zags) of peaks and valleys (V-shapes) interconnected by struts, wherein the struts form generally (a subjective term) linear sections (the straight section as shown) and are interconnected at the peak and valleys (V-shapes) by hinge elements (pivot points); and a plurality of generally (a subjective term) linear (linear in the center section, generally straight over a length thereof) interconnecting elements (between the dots) interconnecting adjacent pairs of circumferential expansion elements (the zig-zags) and joined at approximate mid-points (M) of adjacent struts along a longitudinal axis of the endoluminal stent.

With regard to claim 9, the endoluminal stent elongates (can add length...) along the longitudinal axis (section lengthen as shown in fig. 10) of the endoluminal stent as it expands from a smaller diameter to a larger diameter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolinsky et al. in view of Cox (US 6540774). Wolinsky et al discloses an endoluminal stent as discussed above including a generally (a subjective term) zig-zag configuration along a circumferential axis (at D) of the endoluminal stent wherein the struts are generally (a subjective term) uniform in width (approximately one width). However, Wolinsky et al does not disclose the struts being interconnected at the peaks and valleys by hinge elements have a width narrower than a width of the struts. Cox teaches another endoluminal stent (fig. 5) including struts (34) form generally (a subjective term) linear sections (are straight) and are interconnected at the peaks and valleys (pivot points) by hinge elements (33) have a width narrower than a width of the struts for the purpose of reducing stress at the hinge (Col 9-10, lines 57-67 and lines 1-9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to interconnect the struts at the peaks and valleys by a hinge elements with a width narrower than a width of the struts as taught by Cox on the stent of Wolinsky et al in order to reducing stress at the hinge.

With regard to claim 3, the plurality of generally (a subjective term) linear interconnecting elements further comprise generally (a subjective term) curvilinear first and second terminal sections at opposing ends (curve along the edge of the element) of each interconnecting element that join with the struts (as see in fig. 11 of Wolinsky et al).

With regard to claim 4, both references are unitary in structure.

With regard to claim 5, wherein the generally (a subjective term) curvilinear first and second terminal sections of the plurality of generally (a subjective term) linear interconnecting

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elements further comprise generally (a subjective term) C-shaped sections (any curve can be categorized as C-shaped, see the figure above).

Allowable Subject Matter

Claim 10 is allowed.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McGuinness (US 6,066,169).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Sweet whose telephone number is 571-272-4761. The examiner can normally be reached on 6:30 am - 5:00pm, M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine M. McDermott can be reached on 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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